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PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

REQUEST FOR WITHDRAWAL OF FINAL REJECTION

Applicants can find no basis in the Office action for the rejection of claim 41. "Where a claim is refused for any reason relating to the merits thereof it should be 'rejected' and the ground of rejection fully and clearly stated . . ." (MPEP § 707.07(d)). Therefore, withdrawal of the final rejection is requested, as it would be improper to issue a final rejection where the Office action cover sheet indicates a claim is rejected (claim 41), and no reason for rejecting the claim is set forth in the Office action.

Remarks

Reconsideration is respectfully requested in view of the foregoing amendments and the following remarks. By this amendment, claims 28, 34-37, 41-42, 45 and 47 are amended. Claim 43 is cancelled without prejudice or disclaimer. With entry of this amendment, claims 28, 30-42 and 44-49 are in the application.

Claims 28, 30, 31, 35, 38 and 42-44 stand rejected under 35 USC § 102(b) as allegedly anticipated by U.S. Pat. No. 4,409,500 to Welland (Welland). Claims 42-45 and 47 stand rejected under 35 USC § 102(b) as allegedly anticipated by U.S. Pat. No. 5,123,024 to Dowd et al. (Dowd). Claims 33, 34, 36, 40 and 45 stand rejected under 35 USC § 103(a) as allegedly obvious over Welland in view of using output current to drive a load. Claim 37 stands rejected under 35 USC § 103(a) as allegedly obvious over Welland in view of using output to drive a quantum cascade laser diode. Claims 32, 39 and 46 stand rejected under 35 USC § 103(a) as allegedly obvious over Welland in view of U.S. Pat. No. 6,344,762 to Prentice (Prentice). Claims 46 and 48 stand rejected under 35 USC § 103(a) as allegedly obvious over Dowd in view

AJV:csw:kaa 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

of Prentice. Claim 49 stands rejected under 35 USC § 103(a) as allegedly obvious over Welland in view of Dowd. These rejections are respectfully traversed.

Rejection of claims 28, 30, 31, 35, 38 and 42-44 under 35 USC § 102(b) on the basis of Welland

Independent Claim 28

Amended independent claim 28 recites, in part:

A method, comprising:
operating a transistor device in a common base or common gate configuration;
coupling two or more input signal pathways to a first terminal of the transistor device, wherein one of the input signal pathways is from a current source with a lowpass filter, the filter comprising active and passive components. . . .

Support for the amendment can be found in the original specification at, for example, Fig. 3 and p. 10, lines 20-22.

Welland does not teach or suggest "coupling two or more input signal pathways to a first terminal of the transistor device, wherein one of the input signal pathways is from a current source with a lowpass filter, the filter comprising active and passive components." Instead, Welland is silent as to filtering input signals to a transistor, and it is likewise silent as to filters comprising both active and passive components.

For at least this reason, claim 28 is allowable over Welland. The rejection should be withdrawn, and such action is respectfully requested.

Dependent Claims 30-31

Claims 30 and 31 depend from claim 28 and are allowable over Welland for at least the reasons stated above in support of their parent claim 28. Furthermore, claims 30 and 31 are each

AJV:csw:kzm 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

independently patentable because of the unique and nonobvious features of the combinations set forth in each claim. Accordingly, the Examiner's rejections should be withdrawn, and such action is respectfully requested.

Independent Claim 35

Amended independent claim 35 recites, in part:

An apparatus, comprising:

a transistor device including an emitter, a base, and a collector, said transistor device being in a common base configuration arranged to maintain said emitter at a predefined voltage . . .

a number of input signal pathways coupled to said emitter; and

a current source coupled to said collector, said current source comprising at least one active component. . . .

Support for the amendment can be found in the original specification at, for example, Fig. 3 and p. 11, lines 5-13.

Welland fails to teach or suggest a current source coupled to a collector, the current source comprising at least one active component. Fig. 3 of Welland shows output terminal 26 for the signal I_{RECT} , which is coupled to collector 24. But Welland is silent as to associating with I_{RECT} a current source containing an active component. For at least these reasons, claim 35 is allowable over Welland. The rejection should be withdrawn, and such action is respectfully requested.

Dependent Claim 38

Claim 38 depends from claim 35 and is allowable over Welland for at least the reasons stated above in support of its parent claim 35. Furthermore, claim 28 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim.

AV:csww:kaa 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Independent Claim 42

Amended independent claim 42 recites, in part:

A method, comprising:

operating a transistor device in a common base or common gate . . .
providing a number of input signal pathways coupled to the first terminal of the transistor device, wherein one of the input signal pathways is from a current source with a lowpass filter, the filter comprising active and passive components. . . .

Support for the amendment can be found in the original specification at, for example, Fig. 3 and p. 10, lines 20-22.

Welland fails to teach or suggest an input signal pathway "coupled to the first terminal of the transistor device" that is "from a current source with a lowpass filter, the filter comprising active and passive components." Welland is silent as to filtering a current source to a transistor, and it is likewise silent as to filters comprising both active and passive components. For at least these reasons, claim 42 is allowable over Welland. The rejection should be withdrawn, and such action is respectfully requested.

Dependent Claims 43 and 44

The rejection of claim 43 is moot in light of the cancellation of that claim.

Claim 44 depends from claim 42 and is allowable over Welland for at least the reasons stated above in support of its parent claim 42. Furthermore, claim 44 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim.

AJV:csw:kaa 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Rejection of claims 42-45 and 47 under 35 USC § 102(b) on the basis of Dowd

Independent Claim 42

Amended independent claim 42 recites, in part:

A method, comprising:

- operating a transistor device in a common base or common gate . . .
- providing a number of input signal pathways coupled to the first terminal of the transistor device, wherein one of the input signal pathways is from a current source with a lowpass filter, the filter comprising active and passive components. . . .

Dowd fails to teach or suggest such a method, as Dowd is silent both concerning filtering a current source and concerning filters comprising active and passive components. For at least these reasons, claim 42 is allowable over Dowd. The rejection should be withdrawn, and such action is respectfully requested.

Dependent Claims 43-45

The rejection of claim 43 is moot in light of the cancellation of this claim.

Claim 45 is amended to recite "wherein the current source is a first current source."

Support for the amendment can be found in the original specification at, for example, Figs. 2, 3 and 4.

Claims 44 and 45 depend from claim 42 and are allowable over Dowd for at least the reasons stated above in support of their parent claim 42. Furthermore, claims 44 and 45 are independently patentable because of the unique and nonobvious features of the combinations set

AJV:csww:kan 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

forth in the claims. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Independent Claim 47

Amended claim 47 recites, in part:

A method, comprising:
operating a transistor device with first, second and third terminals . . . and
providing an AC output and a DC output from a third terminal of the transistor
device to a current-dependent load.

Support for the amendment can be found in the original specification at, for example, Fig. 5 and p. 14, lines 4-14.

Dowd does not teach or suggest the claimed method. For example, Dowd teaches that a current output I_O is provided from a terminal of a transistor 14 (see, e.g., Fig. 1), but is silent as to this output being an AC output and a DC output. For at least these reasons, claim 47 is allowable over Dowd. The rejection should be withdrawn, and such action is respectfully requested.

Rejection of claims 33, 34, 36, 40 and 45 under 35 USC § 103(a) on the basis of Welland in view of using output current to drive a load

Dependent Claims 33 and 34

Claim 34 is amended to recite "wherein the current source is a first current source."

Support for the amendment can be found in the original specification at, for example, Figs. 2, 3 and 4.

Claims 33 and 34 depend from claim 28 and are allowable over Welland for at least the reasons stated above in support of their parent claim 28. Furthermore, claims 33 and 34 are

AJV:csw:kaa 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

independently patentable because of the unique and nonobvious features of the combinations set forth in the claims. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Dependent Claims 36 and 40

Claim 36 is amended to recite "wherein said current source is coupled to a laser diode." Support for the amendment can be found in the original specification at, for example, Fig. 4.

Claims 36 and 40 depend from claim 35 and are allowable over Welland for at least the reasons stated above in support of their parent claim 35. Furthermore, claims 36 and 40 are independently patentable because of the unique and nonobvious features of the combinations set forth in the claims. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Dependent Claim 45

Claim 45 depends from claim 42 and is allowable over Welland for at least the reasons stated above in support of its parent claim 42. Furthermore, claim 45 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

AJV:csw:kba 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

**Rejection of claim 37 under 35 USC § 103(a) on the basis of Welland in view of using
output to drive a quantum cascade laser diode**

Dependent Claim 37

Claim 37 is amended to recite that the "current source is coupled to a quantum cascade laser configuration." Support for the amendment can be found in the specification at, for example, p. 10, lines 2-3. No new matter is added.

Claim 37 depends from claim 35 and is allowable over Welland for at least the reasons stated above in support of its parent claim 35. Furthermore, claim 37 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

**Rejection of claims 32, 39 and 46 under 35 USC § 103(a) on the basis of Welland in view of
Prentice**

Dependent Claim 32

Claim 32 depends from claim 28 and is allowable over Welland for at least the reasons stated above in support of its parent claim 28. Prentice does not overcome the shortcomings of Welland with respect to parent claim 28 or to claim 32 itself. Furthermore, claim 32 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

AFV:csw:kaa 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

Dependent Claim 39

Claim 39 depends from claim 35 and is allowable over Welland for at least the reasons stated above in support of its parent claim 35. Prentice does not overcome the shortcomings of Welland with respect to parent claim 35 or to claim 39 itself. Furthermore, claim 39 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Dependent Claim 46

Claim 46 depends from claim 42 and is allowable over Welland for at least the reasons stated above in support of its parent claim 42. Prentice does not overcome the shortcomings of Welland with respect to parent claim 42 or to claim 46 itself. Furthermore, claim 46 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Rejection of claims 46 and 48 under 35 USC § 103(a) on the basis of Dowd in view of Prentice

Dependent Claim 46

Claim 46 depends from claim 42 and is allowable over Dowd for at least the reasons stated above in support of its parent claim 42. Prentice does not overcome the shortcomings of Dowd with respect to parent claim 42 or to claim 46 itself. Furthermore, claim 46 is independently patentable because of the unique and nonobvious features of the combination set

AJV:cswwkaa 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332

forth in the claim. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Dependent Claim 48

Claim 48 depends from claim 47 and is allowable over Dowd for at least the reasons stated above in support of its parent claim 47. Prentice does not overcome the shortcomings of Dowd with respect to parent claim 47 or to claim 48 itself. Furthermore, claim 48 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

Rejection of claim 49 under 35 USC § 103(a) on the basis of Welland in view of Dowd

Dependent Claim 49

Claim 49 depends from claim 28 and is allowable over Welland for at least the reasons stated above in support of its parent claim 28. Dowd does not overcome the shortcomings of Welland with respect to parent claim 28 or to claim 49 itself. Furthermore, claim 49 is independently patentable because of the unique and nonobvious features of the combination set forth in the claim. Accordingly, the Examiner's rejection should be withdrawn, and such action is respectfully requested.

AJV:cswikaa 09/14/05 409279.doc
PATENT

Attorney Reference Number 23-70742-03
Application Number 10/757,332


Conclusion

The final rejection should be withdrawn. For the reasons stated above, all claims are believed to be in condition for allowance. All rejections should be withdrawn, and such action is respectfully requested. If any further issues remain concerning this application, it is requested that the Examiner call the undersigned to discuss such matters.

Respectfully submitted,

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